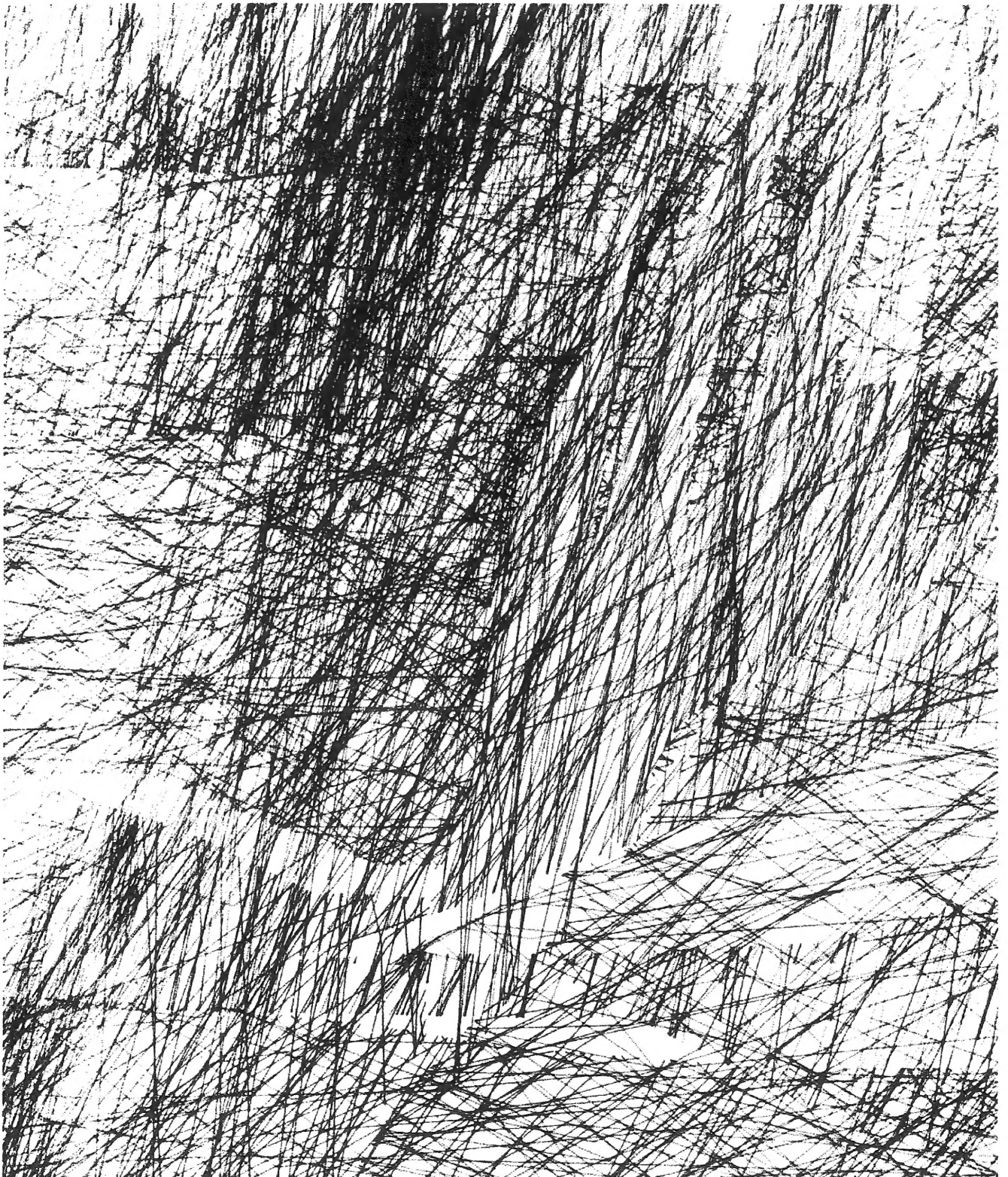


***Artists Using Science and Technology***

Ylem (Eye-lum): The exploding mass out of which the universe emerged in the Big Bang

**Ylem Newsletter**

**Vol. 14, No. 11    November 1994**



Algorithmic computer art, drawn with plotter, by Hans Dehlinger

# Is Computer Art Out of Date?

by Stephen Wilson

I have been working with interactive computer art for the last 15 years. In the early days it was a solitary labor of love that few seemed to sympathize with or understand. Descriptions of my work resulted in blank stares. People wondered why I was concerning myself with this obscure technology. The mainstream art world certainly seemed uninterested in this kind of work. I loved being a voice from the fringe. See my 1986 book **Using Computers to Create Art** for a sample of a perspective from this era.

Now Interactivity has made it to **Time** magazine and the Six o'clock news. Museums and galleries are rushing to install shows. It is a buzzword on the tip of many tongues. It is the royal roadway to artistic fame or to fantastic fortunes. It is hip. Many young artists come to my courses at the university hoping to catch the bandwagon. People ask me am I not now happy to be vindicated and to see my predictions of the importance of this technology come true?

Actually I feel uneasy. The revolutionary implications of machine intelligence and interactivity that I was interested in do not seem to be the main focus of current activity. As Baudrillard might have predicted, interactivity and computer mediated media have become just more styles and avant-gardisms to be appropriated and commodified—more “revolutionary” movements to join the endless circulation of signs and symbols. Interactivity is not the only art technology to see this happen and I am not the only artist to have these feelings. The cycles of pioneering followed by mainstreaming have happened many times—for example, photography, cinema, video, conceptual art, electronic music.

There is a danger in artists thinking that merely working in a new technology is itself revolutionary. As the technology becomes assimilated, their work becomes contextualized in the larger movement and they become just more culture workers among the mass of media proletariat.

So, what to do now? Being caught in the middle of the present chain of assimilation and appropriation has forced me to analyze what I think is important about artists working with emerging technologies. Appropriation does not mean that there is no significant work to be done in art that uses new technologies.

Yet, it is critical for artists to be clear about what they are trying to do and where they situate themselves theoretically. I see three main approaches possible (for more details see my paper, “Dark and Light Visions: the Relationship of Critical Theory to Art that Uses Emerging Technologies”

## **Sigraph 93 Art Show Catalog - Visual Proceedings, ACM, Chicago).**

1. Assimilate into the Mainstream Art and Media World: This approach rejects the critique. It sees the present stage of commercialization as not necessarily destructive of the art world and the art enterprise as it has been practiced for centuries. The art world will adjust and accommodate the new media. Just as with photography and video, the “art” versions will coexist in a parallel (if perhaps maginalized) world. In this view, the involvement of artists is crucial to show alternatives and address issues ignored by the mainstream advertising, entertainment and commercial interests.

2. Deconstruction as Art Practice: This approach uses technological contexts to critically analyze the meta-narratives of contemporary life. Its analysts suggest the distinction between art and media world is not even worth making or perhaps no longer possible. The most profound impact in our media dominated world can come from artists whose work succeeds in the mainstream commercial world and yet manages to simultaneously subvert or expose the narratives of which it is part.

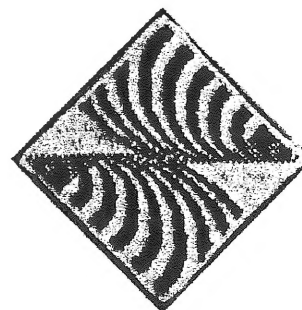
3. Art as Research: In this approach artists seek to enter into the heart of the inventive process to help elaborate the culture transforming possibilities of emerging technologies and scientific inquiry. Their involvement with research does not accept the role of artists as merely users of the gadgets of technology or dilettante dabblers in scientific thought. Rather, artists work to deepen their understanding of the concepts, world views, skills, and practices of the research world sufficiently to become independent definers of research agendas.

Our culture desperately needs the last approach. Technological invention and scientific inquiry are profoundly affecting everything from the nature of everyday life to basic categories of philosophical thought. It is a critical mistake to conceptualize this research as

merely technical. We need a wide range of individuals from all kinds of perspectives helping to shape research agendas and developing new lines of inquiry. The arts can serve a crucial function to attend to research areas and approaches that may be abandoned or ignored because they are uncommercial or out of favor in various technical professions.

This is not an easy approach. Artists need to educate themselves in unprecedented ways and move into unfamiliar, non-art contexts. They need to develop new forms of expression and new relationships of audiences. They need to find a way to keep feet in both the research and the art worlds. In spite of its difficulty, it is an activity of great potential. It points the arts toward a role at the core, not the margins, of emerging culture. There are developments in research areas such as new biology, materials science, astronomy, surveillance technology, and the like that promise to radically shape culture, thought and action. Artists can define roles at the core rather than as commentators from the distance.

So, what to make of the last fifteen years of artists’ involvement with computers? I suspect that the experimentation with computer mediated images, sounds and events that is its most obvious feature will prove not to be the most important innovation. Rather, the new approach to research forged by digital artists will be the most revolutionary change. Many artists got involved at the core of research, learning what they needed to invent new technologies and define new research agendas. Many functioned in central roles equivalent to the engineers, scientists, and entrepreneurs that created this technology and its cultural niche. The future requires that artists similarly get involved now with emerging technologies to define them as art issues, instead of waiting until they are well developed and their cultural niche predefined..



*Knitted Algorithm,*  
a soft fractal knit  
by Eleanor Kent,  
co-designed by  
Craig Cassin

## "Digital Pond - Combining Art and Business"

### Interview with Chris McKenney by Kali Grosberg

This is the first of a two-part interview with partners in The Digital Pond, a digital press in S.F. that works with fine artists and established a gallery to show digital artwork. Part 1 is a brief introduction to "the Pond" and some of the issues they're dealing with as a group of young partners in a young business, interested in serving digital fine artists (itself a young and rapidly evolving genre). Part 2 will address the future. Some of the issues covered will be: responding to the needs of digital fine artists, combining support for digital art and business growth, the future of digital art, keeping up with continuously changing technologies and imagining the future of those technologies and the world they are shaping.

*THE DIGITAL POND provides commercial and fine art quality digital services including IRIS prints, high-end drum scanning, expert manipulation/composition and film recording services.*

*We've built our reputation on doing more than just fine quality digital imaging projects — we like to explore. It's our R&D and your opportunity to expand creative options. [from promotional literature]*

**Y-** Why did you create Digital Pond? What was the vision for it?

**CM-** It's "Pond" because there's an ecological truth in it in that we pictured an ecosystem that spawns different businesses and opportunities surrounding the creation of images using the computer. We're not really interested in having some big central core business just churning away. There isn't a big constraining, "now this is the way we do things and you have to stay within this or get approval for that." Somehow the

culture has grown, just in two short years, into this very tight-knit, looking out for each other and looking for the common interests of the business.

**Y-** So there's a two-pronged effort — there's the things you do to make a living and then there's the things you want to do because of a vision?

**CM-** If you're working just to make money, then you've got some problems. It's not a sufficient motivation for anything.

**Y-** You have a digital fine art gallery here.

**CM-** The current works are going to come down. We're rehabilitating the space. We've grown too fast. We want to move within the next year to a space where we can have a decent gallery. Right now it's always felt kind of iffy, presentation-wise.

**Y-** Are there other places like Digital Pond?

**CM-** There aren't too many trying to do fine art digital image creation. That's still a very small market and interest area for businesses. And frankly, it's not profitable but it's fun and it generally takes us in directions we wouldn't have gone in if we hadn't had that influence. Artists know exactly what the hell they want out of an image and that's going to teach us something.

**Y-** When is this process going to be cheap enough for the artist who is doing great stuff but isn't commercially successful?

**CM-** ...It's rough. It's a shame it's not cheaper. For us, as soon as we do one little print for an artist, we're pretty much losing money. There's no financial advantage to us dealing with that. But that's part of the Pond philosophy. It's not pure altruism. We enjoy what that offers us in terms of images and quality and what it teaches us about process.

## Ylem Forum:

### Art as Research

November 2, 7:30 pm

**McBean Theater, Exploratorium,  
3601 Lyon St., San Francisco**

Professor **Steve Wilson**, InterArts Program, San Francisco State University: "Artist as Researcher."

Wilson says:

This century is characterized by an orgy of research and invention. Knowledge is accumulating at high speed; branches of knowledge, industries, social contexts, and technologies have appeared that could not have been anticipated. These developments are affecting everything from the paraphernalia of everyday life to ontological categories. As the pace continues, predictions about future discoveries and their consequences are impossible.

Artists can establish a practice in which they participate at the core of this activity rather than as distant commentators, even while maintaining postmodern reservations about the meaning of the technological explosion.

**Joseph Perl**, scientific programmer for the SLD project at Stanford Linear Accelerator Center, reveals the latest techniques in displaying subatomic particle events in 3-D.

**Where the Galaxies Are**, a video about discovering and mapping the structure of the universe by astronomer Margaret Geller.

As usual, free and open to the public.

### News of Members

**Roger Ferragallo** has become a large scale "interactive" muralist! His 3-D geometric designs, which require the observer to adjust their focus, are being fabricated by Northern Engraving, Inc., (Gage Tile Division). Two measuring 8' x 20' were seen at the "American Center For Design" national conference in October in San Francisco. A new one at the unbelievable scale of 12' x 40' has just been completed.

**Mike Mosher** was the subject of a lengthy interview about his work in the latest issue of *On-Line*.

### Ylem Newsletter Editor

The October issue of the *Ylem* Newsletter omitted the name of the current articles editor, Kali Grosberg. She will edit the newsletter through the end of the year and will complete her term with an issue about the future. Another addition to our staff: We have a new graphic designer, Peter King of San Francisco.

Beginning January, the post of editor will again be open. The editor brings vision and context to what we Ylem artists do by soliciting (and sometimes writing) short articles. Interested? Please contact Kali Grosberg, 415-956-1568.



*My Puppets and Me  
Make Infinity Tree,  
a fractal tree  
construction from  
a video image by  
Peter H. King*



# YLEM

# GALLERIES

## Events

November 2, 7:30 pm

### Ylem Forum: Art as Research

Details on page 3.

November 4-6

### Anarchy in the Arts

The 14th Annual Symposium on Small Computers in the Arts, at the Franklin Institute Science Museum, Philadelphia, PA. Its theme: "the techno-revolution," the undermining of the traditional bureaucracies of the art world by the decentralization of the tools of production, as in composition using MIDI synthesizers and in the evolution of artist-controlled distribution systems, such as virtual galleries on the Internet.

610-664-3417; collins@hslc.org

November 10

### An Evening with David Levy, Comet Hunter

Lecture by David Levy, co-discoverer of the comet that struck Jupiter this summer, with audience discussion. Features new images of the comet collision and after-effects plus book signing by Levy. Held at:

Calvin Simmons Theatre, near Lake Merritt BART Station, Oakland. \$10-15 reserved seating from Chabot Observatory & Science Center box office: 510-530-3480; fax 510-482-0425 or BASS, 510-672-BASS.

November 10-20

### Cyberqueer

An installation of interactive multimedia and queer digital media at the Gay and Lesbian Experimental Film Festival. Transracial, transsexual transmission blurs borders between identities, bodies and new technologies. The forum in an experimental site for discussion and debate about digital queerness and technoculture. Contact:

Beth Stryker; bes7@columbia.edu; Anthology Film Archives, 32 2nd Ave., New York, NY; 212-807-8258

November 11, 8:00 pm

### Visual Scores/Musical Collage

An outdoor-indoor performance/installation featuring a display of scores by Reid and the world premiere of *Tree Piece No. 44*, with performers Don Buchla and George Lewis. At Mills College, outdoors and in the Prieto Gallery. Tickets purchasable at the door or by sending payment and SASE.

Music Department Concert Series, Mills College, 5000 MacArthur Blvd., Oakland, CA 94613; 510-430-2296

All events and exhibits are in the San Francisco Bay Area except where noted. Is your event or exhibit listed here? Send to Ylem Editor, 967 Moreno, Palo Alto, CA 94303

December 5-9

### Video Expo: Image World West

Multimedia, desktop graphics, digital imaging, video. Held at San Jose Convention Center. Register by December 1 with

Knowledge Industry Publications Inc., 701 Westchester Ave., White Plains, NY 10604; 800-800-5474; fax 914-328-0649

## Exhibits

Through January 2

### Art Machines

The Sculpture of Norman Tuck. Includes 20 purposefully purposeless, intricately impractical interactive mechanical devices that incorporate such disparate stuff as lemons and bowling balls to demonstrate scientific principles like periodicity, kinetic energy, resonance, and magnetism.

The Exploratorium, 3601 Lyon St., San Francisco, CA, 415-563-7337; fax 561-0307; pubinfo@exploratorium.edu

Through November 3

### Electrifying Art (Santa Fe, NM)

A computer art show.

Santa Fe Community College, S. Richards Ave., Santa Fe, NM

Through November 5

### Bruce Beasley and Theophilus Brown

Bruce Beasley: Recent Work in Bronze; Theophilus Brown: Major Drawings.

Harcourts Modern and Contemporary Art, 460 Bush St., San Francisco, CA 94108; 415-421-3428; fax -7842

Through November 19

### Binary Visions

A realization of the computer's potential in the fine arts, as foreseen by George Stibitz, computing pioneer. This exhibit includes some of Stibitz's exploratory work with computer art, and, demonstrating his foresight, features the work of six contemporary artists who have realized the potential of the computer as an artistic medium. These artists are: George Cramer and Mark Wilson, and Ylem members Dorothy Simpson Krause, Barbara Nessim, Joan Truckenbod, and Roman Verostko.

The Williams Gallery, 8 Chambers St., Princeton, NJ 08542; 609-921-1142

November 11-December 10

### Photo as Altered Image

Two-artist show includes "We Are How We See", a series of computer photoconstructions by Ylem member Les Barta.

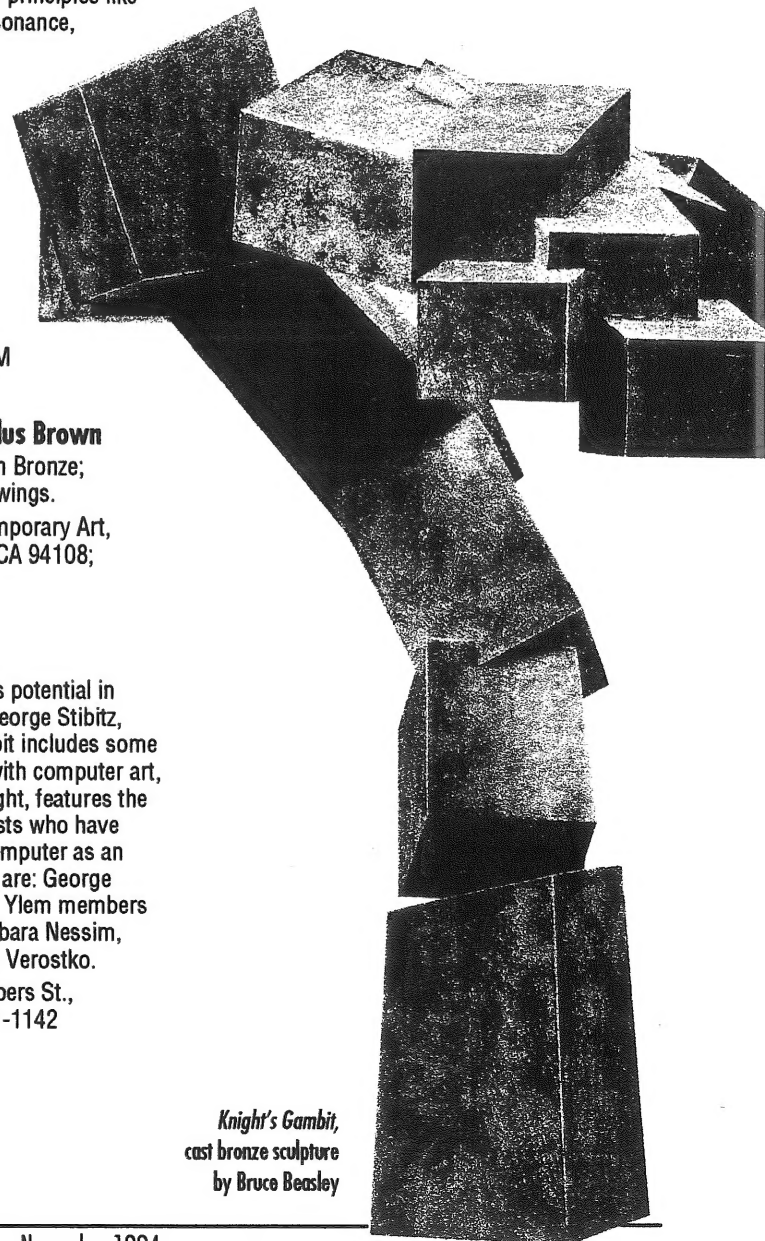
Pence Gallery, 212 D Street, Davis, CA 95616

Through December 31

### Space, Earth, and Earth Environment

Fine arts quilts, an unusual medium for these subjects.

NASA Visitor Center, Moffet Field, Mountain View, CA



*Knight's Gambit,*  
cast bronze sculpture  
by Bruce Beasley

## Opportunities

### Center for Creative Work

An ongoing call for entries by a nonprofit cultural center in downtown San Francisco hosting a documentary video series celebrating collectors and collecting. Through 1994 and 1995, the center will present public screenings. Both professionals and amateurs are invited to submit entries. Send VHS tapes, bio, program description and SASE to: Center for Creative Work, 425 Bush St., Ste. 425, San Francisco, CA 94108; 415-989-9809

### DRC Virtual Gallery

The Design Research Centre at the University of Derby has completed the first "wing" of its World Wide Web Virtual Gallery and is now online. The Electronic Wing contains work from five Derby artists who centralize the use of technology in their work. If you want to submit work or want more info contact:

Geoff Broadway, Research Associate, Design Research Centre, University of Derby, Derby DE22 1GB; tel (0332) 622222, ext 4039; fax (0332) 294861;  
<http://dougal.derby.ac.uk/gallery/drc-gallery.html>;  
g.broadway@derby.ac.uk (Artistic Director);  
s.m.clark@derby.ac.uk (Technical Manager)

### The Thirsty Swede's Video Underground

An ongoing call for entries of short videos for curated shows every Monday night. Format: VHS. Submit entries by mail or in person to:

The Thirsty Swede, Attn: Video Underground, 1821 Haight St., San Francisco, CA 94117

### Deadline November 1 Poetry/Film Video Festival

Theme of 19th Annual: *The Secret is Out*. Poetry films and videos will reach a larger audience than ever before, as the film/video poets join the 9th Annual National Poetry Festival at the Yerba Buena Art Center. New: CD ROM format accepted. Cash awards, works to tour. Entry fee, \$10. For info send SASE to:

Poetry Film Workshop, Fort Mason Center #D, San Francisco, CA 94123

### Deadline November 8 Thomas A. Edison Black Maria Film/Video Festival

The purpose of this festival is "to advance the art of film, video and electronic-image making and to provide exhibition and support opportunities to independent, noncommercial motion picture producers." Formats: 1/2 or 3/4" video; film. Fees: \$25.

Thomas A. Edison Black Maria Film/Video Festival, c/o Jersey City State College, Media Arts Dept., 203 West Side Ave., Jersey City, NJ 07305; 201-200-2043

### Deadline November 10 ARTEC '95

The Council for the International Biennale in Nagoya is holding the Fourth International Biennale in Nagoya—ARTEC'95. The theme is the fusion of Art and Technology. ARTEC'95 will consist of three main events: The International Invitational Exhibition, the International Open Competition & Exhibition, and the Symposium and Workshop. The events will be held in the Nagoya City Art Museum and the Nagoya City Science Museum from April 28–June 25, 1995. For the International Invitational Exhibition, the Council for the International Biennale in Nagoya, Directors Group will select 15 Internationally renowned artists to exhibit their latest works. All works by these top artists will be exhibited in the Nagoya City Art Museum.

All works will be accepted except those works created for commercial production. Large cash prizes. Application Fee: 8,000 yen per entry. Money transfer costs will be borne by the application.

The selected works will be put on public display between April 28th–June 25th, 1995, at the site of the International Open Competition and Exhibition of the 4th International Biennale in Nagoya—ARTEC'95 at the Nagoya City Science Museum, 2-17-22 Sakae, Naka-ku, Nagoya, Japan 460.

Mike Leggett, Artists' CD-ROM Exhibition, c/o Museum of Contemporary Art, P.O. Box R1286, SYDNEY 2000 Australia; fax 61 2 252 4361; m.leggett@unsw.edu.au

### Deadline November 12 Input

The International Public Television Screening Conference is an annual forum for the exchange of program ideas among working professionals in public television. Any genre of work broadcast on TV may be accepted. Formats: 3/4" NTSC.

U.S. Input Secretariat, South Carolina Educational TV, 1101 George Rogers Blvd., P.O. Box 11000, Columbia, SC 29211; 803-737-3434, -8023

### Deadline November 15 Darwin Day Poster Contest

The Humanist Community at Stanford is planning its First Annual Darwin Day Celebration, and is sponsoring a poster contest to celebrate the event. The winning poster will be used to promote the event.

Cash prize. Size: 18" x 24".

For prospectus, send SASE.

Humanist Community, Poster Contest, P.O. Box 60069, Palo Alto, CA 94306-0069

### Deadline November 15 The Videomaker Contest

Theme and format change yearly; call for entries published in *Videomaker magazine's* September issue. Categories have included science fiction, computer tips, spiritual issues. Past formats: VHS, S-VHS, 8mm, Hi8, VHS-C, S-VHS-C.

The *Videomaker Contest*, *Videomaker Magazine*, P.O. Box 4591, Chico, CA 95927; 916-891-8410

### Deadline November 30 Denver International Airport

Seeking info on existing independent, nonadvertisement media artworks in HDTV format for possible display in new pavilion. Work must be no more than 15 minutes, and be suited to a family audience. Submit a brief synopsis, availability of sample work in non-HDTV format or Record Once disc format, length of piece, style/genre, artist info.

HDTV Information, Attn: Elizabeth, Mayor's Office of Art, Culture and Film, 280 14th St., Denver, CO 80202; fax 303-342-8979

### Deadline November 30 Show Your Stuff at The Tech

Art and technology are joining forces at The Tech Museum of Innovation. Starting in February, the exhibit, which will run through June of 1995, will include interactive displays, workshop activities and special presentations. Visitors will be able to use many of the techniques they see on display to create their own quick "works of art." The museum expects over 40,000 people to visit the exhibition, which is meant not only to show how technology has been applied to art, but also to show how art has been applied to help advance technology as well. The Tech seeks High-tech work, processes that would lend themselves to interesting workshops or presentations for the public. Software and other technology-based tools are needed for the exhibit. The Tech is also looking for "good stories" to tell about artists who have collaborated with technologists for the benefit of both. For info, contact Greg Brown, director of programs and visitor experience at The Tech.

The Tech Museum of Innovation, 145 W. San Carlos St., San Jose, CA 95113; 408-279-7183; fax 408-279-7167

*Deadline December 1*

### **National Education Film and Video Festival**

The key U.S. festival for educational and special interest media invites videos, films and interactive media productions completed between Jan. 1, 1993, and Dec. 1, 1994. Subject areas include arts, business, careers, health, history and political science, human relations, science and technology, and teaching and education. Fees: \$80 and up; students, \$30 and up; interactive media, \$125. Entries accepted with late fee through December 15. Competition Director, National Education Film and Video Festival, 655 Thirteenth St., Oakland, CA 94612; 510-465-6885; fax -2835

*Deadline December 10*

### **San Francisco International Film Festival**

This festival awards cash prizes and trophies, as well as honorable mentions and a possible Special Jury Award. The selection committee consists of Bay Area film and videomakers, critics, programmers, distributors and instructors.

Golden Gate Awards Competition, 1521 Eddy St., San Francisco, CA 94115; 415-567-4641; fax 921-5032

*Deadline December 17*

### **Atlanta Film and Video Festival**

This festival showcases independent work and awards cash and equipment prizes. Categories include experimental and animation. Formats: 3/4", VHS, 16mm, Super 8, 35mm film transferred to video. Fees: \$35.

Atlanta Film and Video Festival, 75 Bennett, Ste. M1, Atlanta, GA 30309; 404-352-4225; fax 404-352-0653

*Deadline December 31*

### **ISEA 95 Montreal**

The Sixth International Symposium on Electronic Art (ISEA) will take place in Montreal Sept 17-24, 1995, on the theme Sens emergents/Emergent Senses. Artists, scientists, scholars and educators from throughout the world will discuss the emerging new art forms, the social, cultural and ethical implications of these developments, and the new partnerships that are being created between artists and technology. The program will include a conference of invited speakers, panel discussions, and artists' presentations; exhibitions of new visual and media artworks in various museums and galleries; workshops, on a variety of topics, including robot sculpture, virtual reality, copy-art, multimedia and hypermedia, network-art; music and performance art; an "electronic cabaret;" an evening of electronic cinema and

on-demand screenings; and a market for new media art productions, offering publications, artist books, tapes, CD-ROMs, etc.

December 31, 1994 Deadline for proposals: Exhibitions, Performances, Network projects, Workshops. March 1, 1995 Deadline for Papers, Roundtables, and Poster sessions. April 24, 1995 Deadline for Electronic Cinema. June 1, 1995 Deadline for the "new media market."

ISEA 95 Montreal, 307 rue Sainte-Catherine Ouest, bureau 515B, Montreal, Quebec H2X 2A3, Canada; 514-990-0229; fax 514-842-7459; isea95@er.uqam.ca

*Deadline ASAP*

### **Five Graphics Programmer Positions Open**

Mac programmer (MM, Digital Video, CD ROM exp.); IBM PC programmer (C++, object-oriented paradym exp.); 4 3D animators—very high-profile SEGA Genesis title for SEGA (will train on SGI).

Search Associates, Inc., Nancy Greenfield, 14640 Victory Blvd., Ste. 100, Van Nuys, CA 91411; 818-988-5600, ext. 250; fax 787-0110

*Deadline ASAP*

### **Four Computer Artist Positions Open**

Work on every platform possible, including PSX, SEGA 30X, PC in-house R&D. 3D experience necessary—3D studio. Will train on high-end systems. Strong "organic" animation skills necessary (human and animal forms). Must have taken a "life drawing" class.

Search Associates, Inc., Nancy Greenfield, 14640 Victory Blvd., Ste. 100, Van Nuys, CA 91411; 818-988-5600, ext. 250; fax 787-0110

*Deadline ASAP*

### **Management Position—Audio/Video Production Open**

Ten-plus years broad experience in audio/video production; production and project management experience. Manage an internal production team; create schedules, assign resources, track projects; evaluate, recommend and coordinate external production services; maintain current information on advances in all aspects of media production; coordinate training and education.

Search Associates, Inc., Nancy Greenfield, 14640 Victory Blvd., Ste. 100, Van Nuys, CA 91411; 818-988-5600, ext. 250; fax 787-0110

*Some calendar items reprinted from Multimedia Reporter (from North Bay Assn.), Video Networks (from BAVC), Northwest Cyberarts, ISEA Newsletter, Leonardo Electronics Almanac e-mail. We cannot verify all information sent to us. Readers, inform us of incorrect or false information, please.*

## **Need/Offering**

### **Be Published in Ylem**

Did you realize that the Ylem Newsletter is archived by the Library of Congress, San Francisco Museum of Modern Art, The Getty Center and several university libraries? It is important to both you and our readership for Ylem to receive interesting images and short articles about your artwork. Submission guidelines and address are found on page 8. If possible, please send your work both as hard copy and on disk.

### **Computers and Visualization**

Ylem member Stewart Dickson writes: My work in physical visualization of computer-rendered abstraction (see *Leonardo*, Vol. 25, numbers 3 & 4, 1992, *Visual Mathematics*; "Plastic Math," *Science News*, Vol. 140, No. 5, pp. 72-73, 9/3/91) is now documented online at: <http://mathart.com>. I am seeking support to make this site available full-time. At present it is available "by appointment only." There is, however, a full-time mirror site available (without all the interactive bells and whistles) at <http://www.wri.com/~mathart>. I invite you to view this work and post the URL in your newsletter. For the visually oriented who do not wish to wade through a lot of text to get to the pictures, you might wish to post the hyperlink: [http://mathart.com/portfolio/SPD\\_portfolio\\_summary.html](http://mathart.com/portfolio/SPD_portfolio_summary.html); [http://www.wri.com/~mathart/portfolio/SPD\\_portfolio\\_summary.html](http://www.wri.com/~mathart/portfolio/SPD_portfolio_summary.html)

### **"The computer—Why It Is Changing Both Art and Science"**

Ylem member Roger Malina writes: "I am currently working on a talk and paper on the topic 'The computer—Why It Is Changing Both Art and Science.' I am particularly interested in developing arguments about how tools change the way we see things, and how tools extensively used by both artists and scientists result in unusual cultural change. "Artists and scientists over history have explored the use of new technologies and tools for doing their work. Most tools are not useful to both artists and scientists. "It is now clear that the digital computer will have far ranging effects on the kinds of artforms and art that many artists will make in the future, and also is changing the way many areas of scientific inquiry are carried out and indeed has led to new the creation of new scientific fields. "I am interested in hearing views on this topic from Ylem readers, contributing ideas, inputs, and references."

Roger Malina;  
[rmalina@cea.berkeley.edu](mailto:rmalina@cea.berkeley.edu)

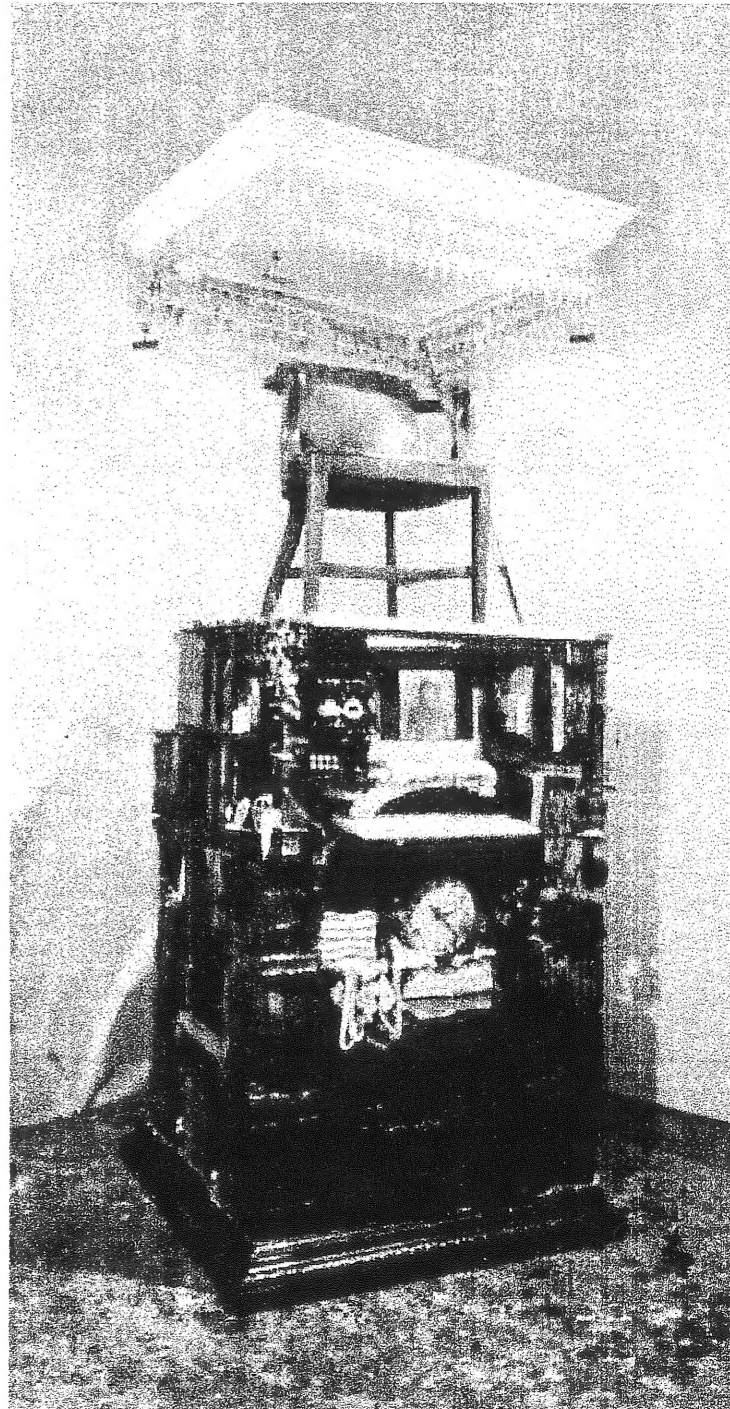


## LAW

Writing arose in the third millennium BC from the need for inventory and taxation. Before the written word, there was no law, only rulers' wishes. Law came into being when rules were written, thus requiring interpretation and application. It is the relationship of the written word to human behavior as law that is the basis for this artwork. Commissioned by the firm of Miller, Canfield, Paddock and Stone for the library in their Detroit law offices, the artwork takes the form of a shrine. **It stands nine feet tall** The 3' square foot by 5' high block is an assemblage of the accouterments of the law: books, a typewriter, rubber stamps, clocks, phones, adding machines, video and audio tapes, a camera, slides, movies, computer discs, jail bars, a chain and locks, a Dictaphone, money, bonds, business trophies, pencils, pens, paper clips, and a file of names. Objects of more symbolic meaning also appear: chess pieces, a compass, scales, bones, a "glass" eye, a tooth, casts of lips, roots, stones, a photo, a target, a race track stub, a driver's license, a counter, a baited trap, live ivy. A juror's chair sits on a slab of white marble on top of the block. The chair is occupied by a heart. Leaning against the chair is a sword. A canopy of keys is suspended from the ceiling above the chair. Four rubber stamps, "YES", "NO", "INNOCENT", "GUILTY", hang from the corners of the canopy. In addition, the sculpture contains an infra-red motion detector and a working computer whose screen and keyboard are visible on the front of the sculpture. The computer's program is the result of a collaboration with software engineer, Jim Zalewski. When people are around, the computer rummages through information related to the legal system, sometimes displaying visages of U. S. Presidents, from Washington to Bush. After the image of R. M. Nixon, the computer may display White House tape transcripts. It may jump from a Matthew Brady photo of Abraham Lincoln to an image of Harriet Tubman, a scarf around her head, staring warily at the camera, followed by a sequence of biographies and faces of African-Americans including Nat Turner, W. B. Dubois, Malcolm X. It may follow this with a biography of Justice O'Connor and then appear to use a modem to access the Internet or LEXIS legal services and look up a speech on women lawyers. Video images of parts of the sculpture itself, the

sword leaning against the chair, for example, may appear on the monitor in connection with a portrait of Charlemagne of whose sword the sculpture's is a copy. Or the open and closed lips may precede an image of Martin Luther. Sometimes it is difficult to see the legal content as when the computer is contrasting the migration of the first Americans from the

Asian landmass via the Bering strait with the arrival of the conquistadors in Mexico and the settlers in New England. But as the data continues and begins to focus on Geronimo and Red Cloud, Wounded Knee and the American Indian Movement, it becomes clear that the issue is how a legal system continues to confront ancient inequities.



LAW  
A sculpture dedicated to  
Lydia Laur Pallas Loren

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Design for a  
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# YLEM

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ISSN 1057-2031  
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**November  
Newsletter**

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